

Laparoscopic Approach to A Tailgut Cyst Presenting as Tenesmus

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ABSTRACT

Retrorectal hamartomas are rare congenital abnormalities which can present with a wide variety of symptoms or can be completely asymptomatic, they usually develop from the remnants of the embryonic hindgut. we present a case of a 37 years female who was complaining of tenesmus and low back pain, MRI revealed a pre-sacral mass which was completely excised using a transperitoneal laparoscopic approach, histological examination showed a tail gut cyst. we present this case to highlight the rarity of this clinical entity and its implications.

INTRODUCTION

Retrorectal hamartomas (tailgut cysts) are rare congenital abnormalities believed to develop from the remnants of the embryonic hindgut (Hjermstad and Helwig, 1988). They typically develop in the retrorectal space¹. More than half of the patients will present with symptoms mainly low back pain, while others are found incidentally during a routine examination which usually leads to the difficulty and delay in diagnosing this entity².

Tailgut cyst can present in any age group but appear predominately between 30-60 years old, they have a high predominance in female population with 5:1 ratio, which can mimic gynecological problems and delay diagnosis³.

Diagnosing tailgut cyst is done primarily by imaging modalities; magnetic resonance imaging considered the modality of choice and surgical management by complete excision is the best method for treating such cysts (Mathis et al. (2010).

Through the literature a large variety of surgical approaches have been used to treat tailgut cysts. anterior approach through the abdominal wall or posterior trans-sacral or combined abdominal-sacral approaches were most defined, while trans-vaginal and Trans ano-rectal approaches were used rarely⁴.

CASE REPORT

A 37years female, with no significant past medical history was referred to our clinic after longstanding history of treatment for low back pain as she started to develop tenesmas over the last couple of months. On examination she was found to have a large mass pushing the posterior rectal wall.

A pelvic MRI was performed which revealed a multilocular relatively well-defined pre-sacral mass lesion, measuring 6.1x5.2x4.3 cm of lightly high T1 and T2 signal with tiny calcific foci at the margin [Figure 1].



Figure 1: pre-sacral region mass lesion 6.1x5.2x4.3 cm in size, with no definite relation to the sacral or spinal region

Patient underwent a trans-peritoneal approach and cyst was removed entirely, intra-operative the cyst's walls were completely adhered to the posterior rectal wall antero-inferiorly. We used a rectoscope with light source to identify the dissection plan [Figure 2].

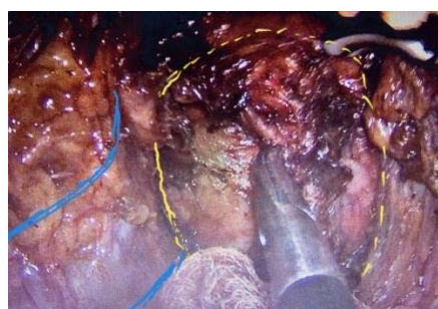


Figure 2: Intra-operative view of the cyst

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Patient achieved full recovery and complete resolution of symptoms and was discharged with routine follow up to our clinic.

DISCUSSION

The retrorectal space is anatomically defined by the peritoneal reflection superiorly, the levator ani and the coccygeus muscle inferiorly, the rectum anteriorly, and the sacrum posteriorly.

Tumors of the pre-sacral (retrorectal) are very uncommon; usually they are classified according to the histological cell type. They are divided into congenital (65%), neurogenic (10%), inflammatory (5%), osseous (5%), and miscellaneous (15%)⁵.

Developmental cysts account for approximately 60 % of the congenital pre-sacral tumors and must be distinguished from anterior sacral meningocele, necrotic rectal leiomyosarcoma, cystic sacrococcygeal teratoma, and anal duct or gland cyst⁵.

In adults' developmental cysts and chordoma are the most common lesions of the space in comparison to childhood teratomas⁶. According to the embryonic cell of origin they are classified into: Dermoid, epidermoid, and neurenteric cysts, teratomas and enteric cysts (retrorectal cysts and cystic rectal duplication), retrorectal cyst (tailgut cyst) has been described in various forms in the literature: enterogenous cyst and cyst of the post anal intestine, myoepithelial hamartoma of the rectum, mucus secreting cyst, and retro-rectal cystic hamartoma⁷.

The cyst in itself may be multilocular or unilocular and reach a diameter up to 12 cm. A large variety of epithelial linings may be seen, including stratified columnar, stratified squamous, cuboidal, transitional, mucinous or ciliated columnar cells. Interrupted bundles of smooth muscle are present⁶. Tail gut cysts usually develop from the remnants of the embryonic hindgut. Such lesions are more predominant in female with a ratio 5:1, they present usually in mid age women (30-60 years) but they can present at any age⁸.

The clinical presentation of such tumors can vary from asymptomatic with incidental finding on routine examination or imaging, to a wide range of symptoms due to the size and location of the tumor, urological, neurological and defecation problems have been described in the literature with some tumors protruding through the anus and misdiagnosed as hemorrhoids⁹.

Diagnosis of tail gut cysts is usually through imaging modalities, MRI being the corner stone with Computer tomography. MRI signal intensity may vary according to contents but usually demonstrates a low signal intensity on T1-weighted images and high signal intensity on T2-weighted images¹⁰.

And biopsy of such tumors is associated with high risk of complication such as fistula formation, infection, spread of malignancy in cyst with malignant transformation, and it also leads to distortion of the cyst anatomy leading to difficult surgical extirpation^{11,12}.

Tail gut cysts (retrorectal hamartomas) differential diagnosis include a variety of clinical entities such as cystic teratoma, rectal duplication cyst, dermoid and epidermoid cysts⁶.

The treatment modality of choice remains en-bloc surgical excision of such tumors. Different approaches have been described throughout the literature from trans-abdominal/transperitoneal approach, trans-sacral posterior approach and transvaginal, trans anal approach. Laparoscopic approach with little surgical trauma (reduced blood loss, reduced post-

operative pain, shorter in-patient stay and improved cosmesis results) is compared with other approaches¹³.

CONCLUSION

Retrorectal hamartomas (Tailgut cyst) are a rare clinical entity which should be considered in the differential diagnosis of retrorectal masses, especially in mid age women. Complete surgical excision as treatment of choice, and the consideration of the laparoscopic approach due to associated advantages.

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